

In Class Prep

- 1) p 183 q.9
- 2) Write in Factored Form  $f(x) = 6x^2 + 5x - 4$
- 3) p188 q. 12
- 4) p233 q 12
- 5) p 240 q 8
- 6) Sketch  $f(x) = \sin(x + 60^\circ) - 2$
- 7) Evaluate  $32^{0.20}$

Jun 17-11:06 AM

$$f(x) = 120x^2 + 1800x + 5400$$

$$9480 = 120x^2 + 1800x + 5400$$

$$0 = 120x^2 + 1800x + 5400 - 9480$$

$$0 = 120x^2 + 1800x - 4080$$

$$0 = 120(x^2 + 15x - 34)$$

$$0 = 120(x^2 - 2x + 17x - 34)$$

$$0 = 120x(x-2) + 17(x-2)$$

$$0 = 120(x-2)(x+17)$$

The width of your check is 2m wide to spend exactly 9480

Jan 25-1:33 PM

$$f(x) = 6x^2 + 5x - 4$$

$$f(x) = (6x^2 - 3x + 8x - 4)$$

$$f(x) = 3x(2x-1) + 4(2x-1) + 8 - 3$$

$$f(x) = (2x-1)(3x+4)$$

$$f(x) = a(x-s)(x-t)$$

$\frac{1}{2}$  and  $-\frac{4}{3}$

Jun 17-1:49 PM

$$g_{12} \text{ p188 } 22 \text{ m/s}$$

$$h(t) = -5t^2 + 22t$$

max height

$$h(t) = -5t(t-4.4)$$

$$0 \quad 4.4$$

$$\frac{5+t}{2}$$

$$0 + 4.4$$

$$\frac{2}{2}$$

$$= 2.2$$

$$h(2.2) = -5(2.2)(2.2 - 4.4)$$

$$h(2.2) = -5(2.2)(-2.2)$$

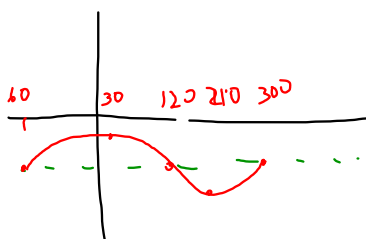
$$h(2.2) = 24.2$$

The max height of the rocket is 24.2 m at 2.2 sec.

Jan 21-10:14 AM

$$f(x) = a \sin(x-c) + d$$

$$f(x) = \sin(x+60^\circ) - 2$$



$$\begin{array}{l} 0^\circ - 10 \\ 90^\circ - 10 \\ 180^\circ - 10 \\ 270^\circ - 10 \\ 360^\circ - 10 \end{array}$$

Jun 17-1:51 PM

$$32^{0.20}$$

$$32^{\frac{2}{10}}$$

$$32^{\frac{1}{5}}$$

$$\left( \sqrt[5]{32} \right)$$

$$= 2$$

Jun 17-1:54 PM

$$h(t) = -5t^2 + 22t$$

Max height

$$h(t) = -5(t^2 - 22t)$$

$$h(t) = -5(t^2 - 4.4t + 4.4^2 - 4.4^2)$$

$$h(t) = -5(t - 2.2)^2 + 4.84$$

$$h(t) = -5(t - 2.2)^2 + 4.84$$

$$h(t) = -5(t - 2.2)^2 + 24.2$$

The max height is 24.2m at 2.2s.

Jun 17-1:56 PM

$$50000 = ?$$

$$P(x) = -5x^2 + 550x - 5000$$

$$50 = -5x^2 + 550x - 5000$$

$$0 = -5x^2 + 550x - 5000 - 50$$

$$0 = -5x^2 + 550x - 5050$$

$$0 = -5(x^2 - 110x + 1010)$$

$$P(x) = \text{thousands of dollars}$$

$$b^2 - 4ac = +ve$$

$$(-110)^2 - 4(1)(1010)$$

$$12100 - 4040$$

$$= +8060 \checkmark$$

It is possible to earn a profit of 50000 b/c the discriminant is +ve.

Jun 17-2:00 PM

$$f(x) = \sin x$$

Finding an Equation from Graph

2. max 2.5 min -5.5

$$y = a \sin(x - c) + d$$

$$y = 4 \sin(x) - 1.5$$

Jan 27-9:54 AM

$$3 \times 2^3 \times 2^5 = 4^3 \times 2^7$$

$$2^{10} = 2^{10}$$

$$5^4 \times 5^4 = \frac{5^{10}}{5^2} = 5^8$$

$$64^{\frac{1}{2}} \times 16^{\frac{1}{3}} = 4^{\frac{1}{2}} \times 4^{\frac{2}{3}} = 4^{\frac{3}{2} + \frac{2}{3}} = 4^{\frac{13}{6}}$$

Jan 27-10:23 AM

$$i = 3.25\% \text{ / year cum monthly}$$

$$i = 0.0325 / 12$$

$$= 0.002708333$$

$$R = 50$$

$$n = 40 \times 12 = 480$$

$$A = ?$$

Jan 27-10:39 AM

$$A = R \frac{[(1+i)^n - 1]}{i}$$

$$= 50 \frac{[(1+0.00270833)^{480} - 1]}{0.00270833}$$

$$= 50 \frac{[(1.00270833)^{480} - 1]}{0.00270833}$$

$$= 50 \frac{[3.66285] - 1}{0.00270833}$$

$$= 50(2.66285)$$

$$= 1331.425$$

Jan 27-10:45 AM